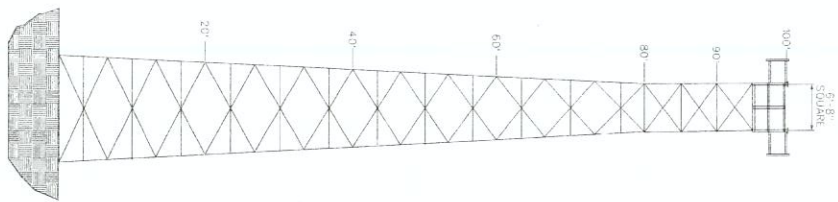




RCAG - AUSTELL, GEORGIA
INSTALL TWO ADDITIONAL ANTENNA TOWERS

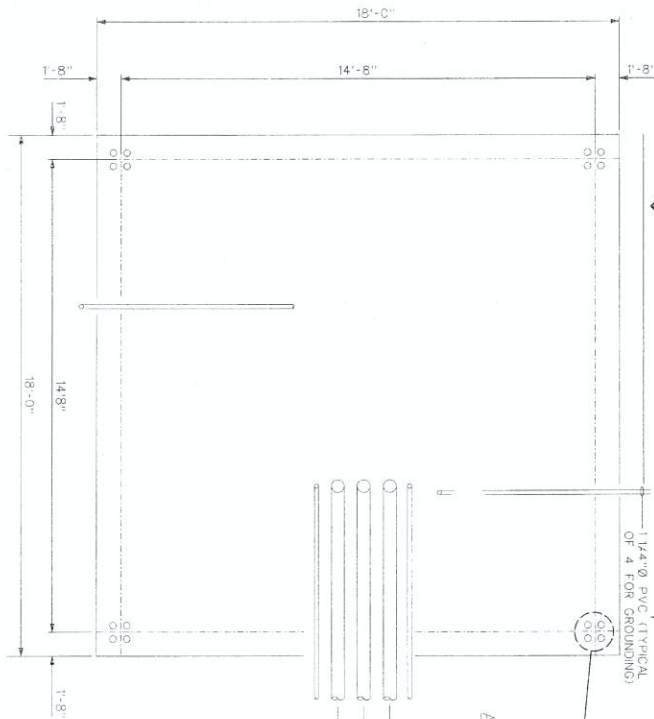
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ATLA-D-105241-0001		06/13/2011	COVER SHEET/DRAWING INDEX
ATLA-D-105241-R001		06/13/2011	PLOT SURVEY
ATLA-D-105241-C001		06/13/2011	EXISTING, GEOMONING, BONDING, AND LIGHTNING PROTECTION PLOT LAYOUT
ATLA-D-105241-C002		06/13/2011	NEW ANTENNA TOWER LAYOUT
ATLA-D-105241-S001		06/13/2011	ANTENNA TOWER
ATLA-D-105241-E001		06/13/2011	ANTENNA TOWER LIGHTNING PROTECTION
ATLA-D-105241-E002		06/13/2011	ANTENNA TOWER CABLE INSTALLATION SECTION AND DETAILS
ATLA-D-105241-E003		06/13/2011	EARTH GROUND RESISTANCE TESTING METHOD-B
ATLA-D-105241-0002		06/13/2011	NEW ANTENNA LAYOUT AND FLOOR PLAN
			EXISTING ANTENNA LAYOUT AND FLOOR PLAN

[illegible]

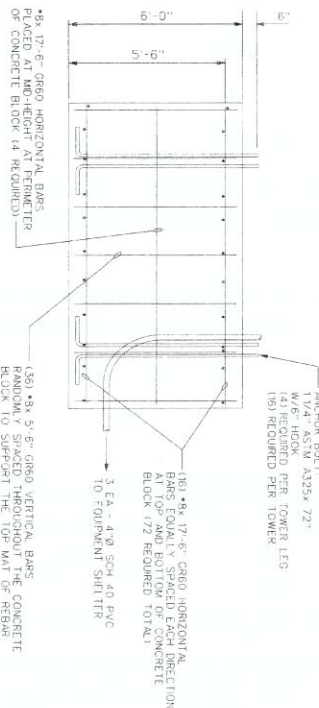


ELEVATION	BEAM WIDTH	LEG (GROSS)	DIAGONAL (GROSS)	HORIZONTAL (GROSS)
90-100°	6-8"	3 1/2 x 3 1/2 x 1/4	2 x 2 x 1/8	2 x 2 x 1/8
80-90°	6-8"	3 1/2 x 3 1/2 x 3/8	2 x 2 x 1/4	2 x 2 x 1/8
60-80°	8-8"	4 x 4 x 1/8	2 x 2 x 1/4	2 1/2 x 1/2 x 1/4
40-60°	10-8"	5 x 5 x 3/8	2 x 2 x 1/4	3 x 3 x 3/8
20-40°	12-8"	5 x 5 x 1/2	2 1/2 x 2 1/2 x 1/4	3 x 3 x 5/8
0-20°	14-8"	5 x 5 x 1/2	2 1/2 x 2 1/2 x 1/4	3 1/2 x 3 1/2 x 5/8

TOP VIEW



SIDE VIEW

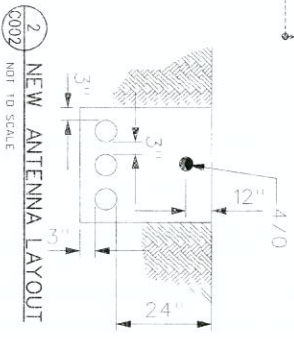



- ## NOTES
1. CONCRETE IS A MINIMUM 4000 PSI @ 28 DAYS STRENGTH.
 2. 100 FT TOWERS ARE GPM MANUFACTURED BY YOUNG'S MANUFACTURING, MONROE, CO ANCHOR BOLTS ARE FURNISHED WITH THE TOWER.
 3. TOWER DESIGN IS A BOLT TOGETHER CONSTRUCTION CONSISTING OF ALL ANGLE MEMBERS.
 4. ANCHOR BOLTS ARE 1 1/4" DIA. FOR 100' TOWERS.
 5. ALL REBAR HAS 3" MINIMUM CONCRETE COVER AND SHALL CONFORM TO THE ASTM A615 GRADE SHOWN.
 6. THIS FOUNDATION REQUIRE A MINIMUM ALLOWABLE GROSS BEARING OF 2500PSF.
 7. BASE OF EXCAVATION CLEAN OF ALL DEBRIS AND LOOSE SOIL.
 8. 6" O.C. OF CONCRETE REQUIRED FOR THIS FOUNDATION.
 9. TOWERS ARE FIELDER'S UNDESIGNED. CONTRACTOR NOTIFIED CONTRACTING OFFICER'S REPRESENTATIVE (COR) WHEN ANY MISSING TOWER PARTS WERE FOUND.
 10. CONCRETE INSTALLED ONE SAFETY CLIMBING RAIL (10"X4" PER TOWER. INSTALLED ONE DETAILS ARE PART OF THE TOWER MANUFACTURER DETAILS.



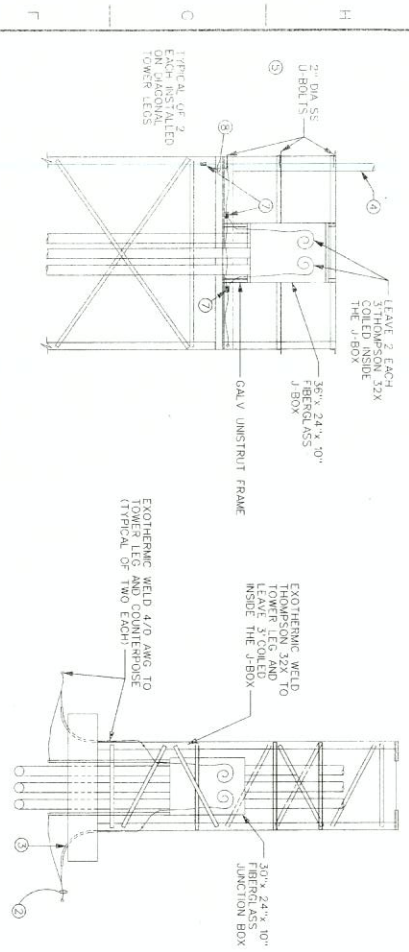
ANCHOR BOLT PATTERN

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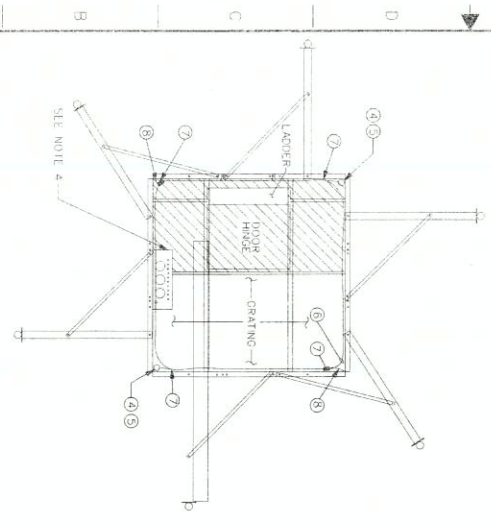
- LEGEND
- GROUND RODS
- X CABLE TO CONNECTIONS
- 4/0 CHLORPNEUM. CABLE
- H--- HELIAX CABLE IN PVC CONDUIT
- ▲ 3/4" x 10" GROUND RODS (NEW)
-  HAND DIG

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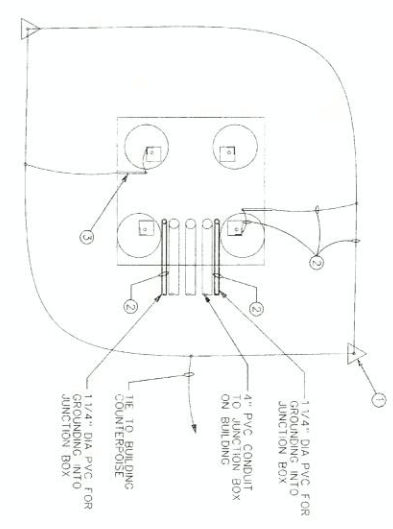


1 JUNCTION BOX ELEVATION
E001 NOT TO SCALE

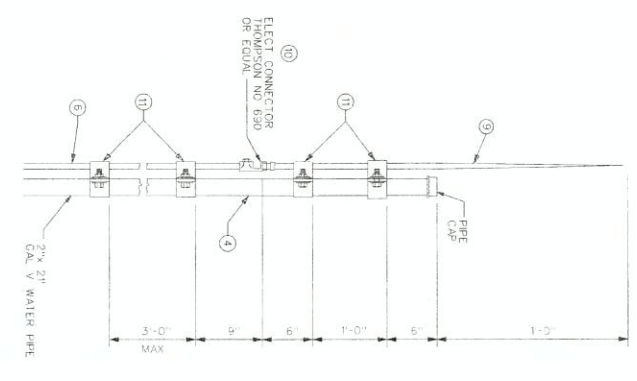
2 TOWER CONDUIT ELEVATION
E001 NOT TO SCALE



3 JUNCTION BOX SECTION
E001 NOT TO SCALE



4 TOWER CONDUIT SECTION
E001 NOT TO SCALE



5 AIR TERMINAL ASSEMBLY
E001

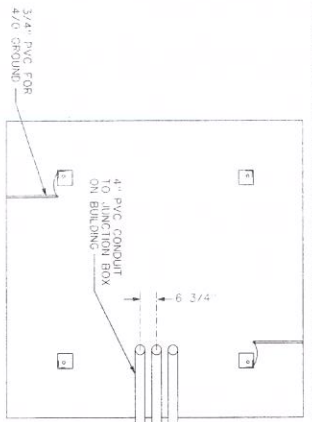
LEGEND

- ① GROUND ROD COPPER CLAD 3/4" DIA x 10'
- ② 4/0 AMC 948 COPPER, 28 STRANDS, WT 660 LBS/1000 FT
- ③ CONDUIT, RIGID PLASTIC, 3/4"
- ④ STANDARD STEEL PIPE, GALV 2" x 21 FEET LONG (WATER PIPE)
- ⑤ U-BOLT, 1/2" WITH SELF LOCKING NUTS, GALV
- ⑥ DOWN CONDUCTOR, 32 STRANDS
- ⑦ PIPE CLAMP, THOMPSON 32X OR EQUAL
- ⑧ PARALLEL CLAMP, THOMPSON #4248 OR EQUAL
- ⑨ SET SCREW CLAMP, THOMPSON #7010R OR EQUAL
- ⑩ AIR TERMINAL, 5/8" x 3, THOMPSON #667 OR EQUAL
- ⑪ VERTICAL CONNECTOR, THOMPSON #690 OR EQUAL
- ⑫ PIPE CLAMP, THOMPSON #240X OR EQUAL
- ⑬ CABLE CLAMP, THOMPSON #142 OR EQUAL

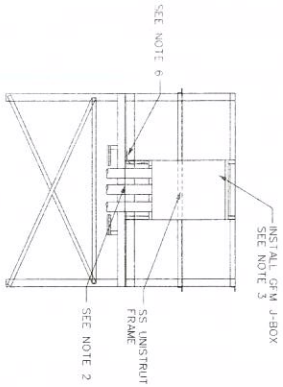
NOTES

1. SUPPORTED THE CONDUCTOR AT A MINIMUM OF 2'-0" SPACING AROUND THE PERIMETER OF THE PLATFORM.
2. INSTALLED DOWN CONDUCTOR WITH AN MINIMUM OF BENDS.
3. ALL GROUNDING CONNECTIONS BELOW GRADE BY EXOTHERMIC WELD.
4. INSTALLED JUNCTION BOX AT 90° FROM HATCH OPENING DIRECTION.

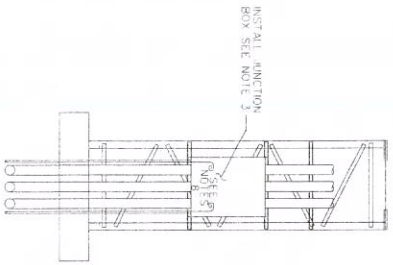
PROJECT NUMBER PROJECT NAME PROJECT LOCATION PROJECT DATE		PROJECT ENGINEER PROJECT CHECKER PROJECT DATE	
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION EASTERN SERVICE AREA RCAF ANTENNA TOWER LIGHTING PROTECTION DETAILS			
DRAWN BY CHECKED BY DATE		APPROVED BY DATE	
PROJECT NUMBER PROJECT NAME PROJECT LOCATION PROJECT DATE		PROJECT ENGINEER PROJECT CHECKER PROJECT DATE	



1 CONDUIT LAYOUT IN SLAB
E002 NOT TO SCALE



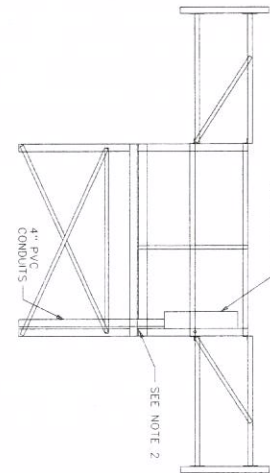
2 JUNCTION BOX ELEVATION
E002 NOT TO SCALE



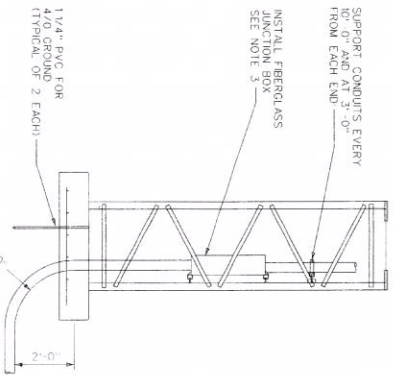
3 TOWER CONDUIT ELEVATION
E002 NOT TO SCALE



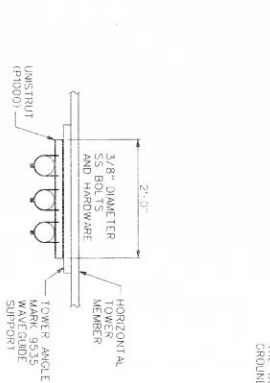
4 JUNCTION BOX SECTION
E002 SCALE 3\"/>



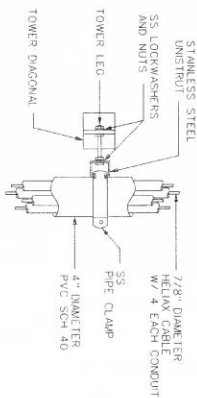
5 TOWER CONDUIT SECTION
E002 NOT TO SCALE



6 JUNCTION BOX HOLE LAYOUT
E002 SCALE 3\"/>



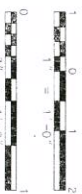
7 CONDUIT SUPPORT PLAN
E002 SCALE 1\"/>



8 CONDUIT SUPPORT SECTION
E002 NOT TO SCALE

NOTES

1. THE 7/8" HELIX CABLE SHALL NOT BE BENT CLOSER THAN A 12" RADIUS.
2. CUT SECTION OF EXPANDED METAL GRATING AS REQUIRED TO ROUTE CONDUITS TO JUNCTION BOX. ALL CUT EDGES SHALL BE GALVANIZED. FRAME CUT OPENING WITH 2" x 2" x 1/4" GALVANIZED STEEL ANGLE.
3. CONTRACTOR INSTALLED 36" x 24" x 10" JUNCTION BOX ON TOP OF THE TOWER AND 48" x 48" x 10" JUNCTION BOX ON TOP OF THE TOWER. ALL JUNCTION BOXES SHALL BE STAINLESS STEEL BOLTS. VERIFY BOX LOCATION WITH FAA RESIDENT ENGINEER.
4. CONTRACTOR INSTALLED TO EACH 1/2" DIA WATER TIGHT STRAIN RELIEF CONNECTORS (GFM) (180 2673) FOR CABLE INSTALLED BY OTHERS. IN THE BOTTOM OF THE JUNCTION BOX.
5. CONTRACTOR INSTALLED 2 EACH 1/2" DIA STRAIN RELIEF CONNECTOR (GFM) FOR THE THROPSON 32X FROM THE TOWER LOOP.
6. ALL CUT EDGES, CORNERS DRILLED HOLES AND OTHER ABRASION AREAS SHALL BE COLD GALVANIZED.
7. CONTRACTOR INSTALLED 1 5/8" x 1 5/8" STAINLESS STEEL UNISTRUT FRAME TO THE ANTENNA TOWER. UNISTRUT FRAME SHALL BE STAINLESS STEEL UNISTRUT (101000) FRAME AND 4X ATTACH TO TOWER USING A STAINLESS STEEL UNISTRUT (101000) FRAME AND 4X ATTACH TO TOWER USING A STAINLESS STEEL UNISTRUT (101000) FRAME. WITH 4 EACH IN EACH 4" PVC CONDUITS.
8. CONTRACTOR INSTALLED #20 GROUND WIRE THROUGH 1 1/4" Ø PVC INTO EACH OF THE BOTTOM JUNCTION BOXES (180 2673) FOR CABLE INSTALLED BY OTHERS. LEAVE THREE FEET OF WIRE COILED IN EACH BOX.



<p>ISSUED FOR AS-BUILT</p>		<p>ANTENNA TOWER CABLE INSTALLATION SECTION AND DETAILS</p>	
<p>DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION EASTERN SERVICE AREA RCAG</p>		<p>PROJECT NO. 1002 SHEET NO. 1002-1 DATE 06/13/2010 BY [Signature] CHECKED BY [Signature] APPROVED BY [Signature]</p>	
<p>PROJECT NO. 1002 SHEET NO. 1002-1 DATE 06/13/2010 BY [Signature] CHECKED BY [Signature] APPROVED BY [Signature]</p>		<p>PROJECT NO. 1002 SHEET NO. 1002-1 DATE 06/13/2010 BY [Signature] CHECKED BY [Signature] APPROVED BY [Signature]</p>	

THREW ON 08/11/09

2 RESISTANCE MEASUREMENT WORKSHEET
NOT TO SCALE
E003

3
E003

SAMPLE OF A COMPLETE
RESISTANCE MEASUREMENT WORKSHEET

NOT TO SCALE

1. NEW FACILITIES-
THE COR, WITH THE ASSISTANCE OF A QUALIFIED ELECTRICIAN FURNISHED BY THE CONTRACTOR, SHALL PREPARE A NEW SKETCH OF THE FACILITY AND DRAINAGE SYSTEM OF THE NEW FACILITY, SIMILAR TO THAT SHOWN IN FIG. 1, AND SHALL POSTER WITH THE ASSISTANCE OF A QUALIFIED WORKSMAN (P. 60, 2) SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE FACILITIES. HE SHALL ADVISE THE CHIEF OF THE FACILITIES CHIEF WITH A COPY TO THE PROJECT ENGINEER IN THE RESIDUAL OFFICE.

2- EXISTING FACILITIES- EACH SECTOR OFFICE SHALL PREPARE A NEAT SKETCH OF THE FACILITY GROUND SYSTEM SIMILAR TO THAT SHOWN IN FIG. 1 THIS SKETCH TOGETHER WITH THE RESISTANCE MEASUREMENT WORKSHEET (FIG. 2) WILL BECOME PART OF THE PERMANENT FACILITY RECORD.

3. NEW AND EXISTING FACILITIES- MEASURE THE RESISTANCE OF THE ELECTRODE SYSTEM WITH AN INSTRUMENT

A) CONNECT THE TERMINALS MARKED C1 AND P1 TOGETHER AND CONNECT THEM TO THE ELECTRODE UNDER TEST.

B) POSITION THE C2 PROBE ALONG A LINE WHICH MAXIMIZES THE DISTANCE FROM THE ELECTRODE UNDER TEST AND FROM

OTHER BURIED METALS SUCH AS UTILITY PIPES, POWER AND SIGNAL CABLES, FUEL TANKS, ETC., IN DETERMINING THE DIRECTION FOR PLACEMENT OF THE C2 PROBE. EXAMINE THE CONFIGURATION

THE ELECTRODE SYSTEM FOR THE FACILITY AND DETERMINE THE LOCATION OF ALL SUCH BURIED METALS, THEN LOCATE THE PROBE AS FAR AS POSSIBLE FROM THESE METALS AS ILLUSTRATED IN

FI. 1. KEEP C2 AND P2 LEADS SEPARATED AS FAR AS POSSIBLE. THE C2 PROBE LINE SHALL RUN 90 DEGREES TO THE A.L.S.

C) POSITION THE C2 PROBE AT DISTANCES AS SHOWN IN FIG. 1, RECORD THE METER READINGS FOR EACH C2 & P2 PROBE POSITION. (NOTE THAT THE P2 POSITIONS ARE 62% OF THE C2 POSITIONS).

IT MAY NOT BE NECESSARY TO PLOT THE FULL 500' PLOT ENOUGH POINTS TO ACCURATELY DETERMINE WHERE THE CURVE LEVELS OFF.

D) PLOT ON A GRAPH SIMILAR TO FIG. 3 AS MANY RECORDED RESISTANCE READINGS VERSUS THE CORRESPONDING C2 PROBE DISTANCE AS WERE AVAILABLE TO OBTAIN THE BEST AVAILABLE CURVE.

E) THE TRUE VALUE OF RESISTANCE CAN BE ESTIMATED BY EXTRAPOLATING THE CURVE TO ITS ASYMPTOTIC VALUE.

RESISTANCE	
------------	--

METER READING

9.1	9.1
9.1	9.1

6.0	
-----	--

0.7	
0.7	

[illegible][illegible]

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NOV 01 1985	RECEIVED	

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

ATO - TECHNICAL OPERATIONS	EASTEE
RCAG	

EARTH GROUND RESISTANCE
TESTING METHOD D

TESTING METHOD B

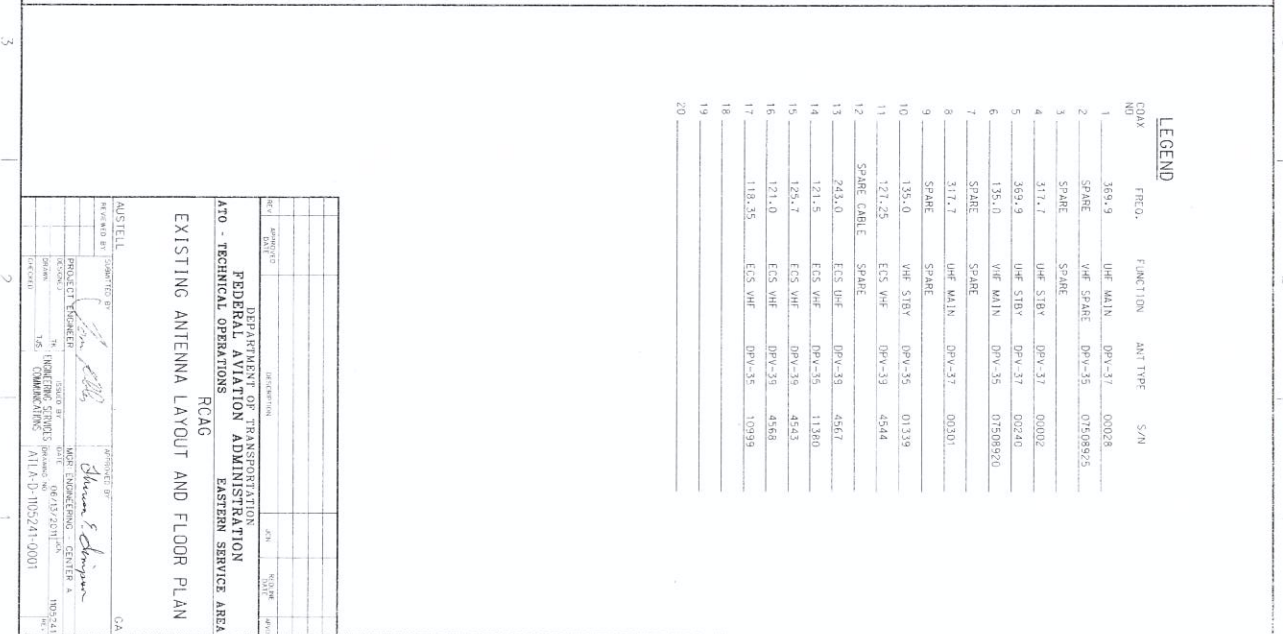
AUSSTELL	
6. Juni 1956	11.0. 67
RECHNUNG	10.0. 67
DRESDEN	

PROJECT ENGINEER	<i>Shuan</i>
MGR ENGINEER	<i>Shuan</i>

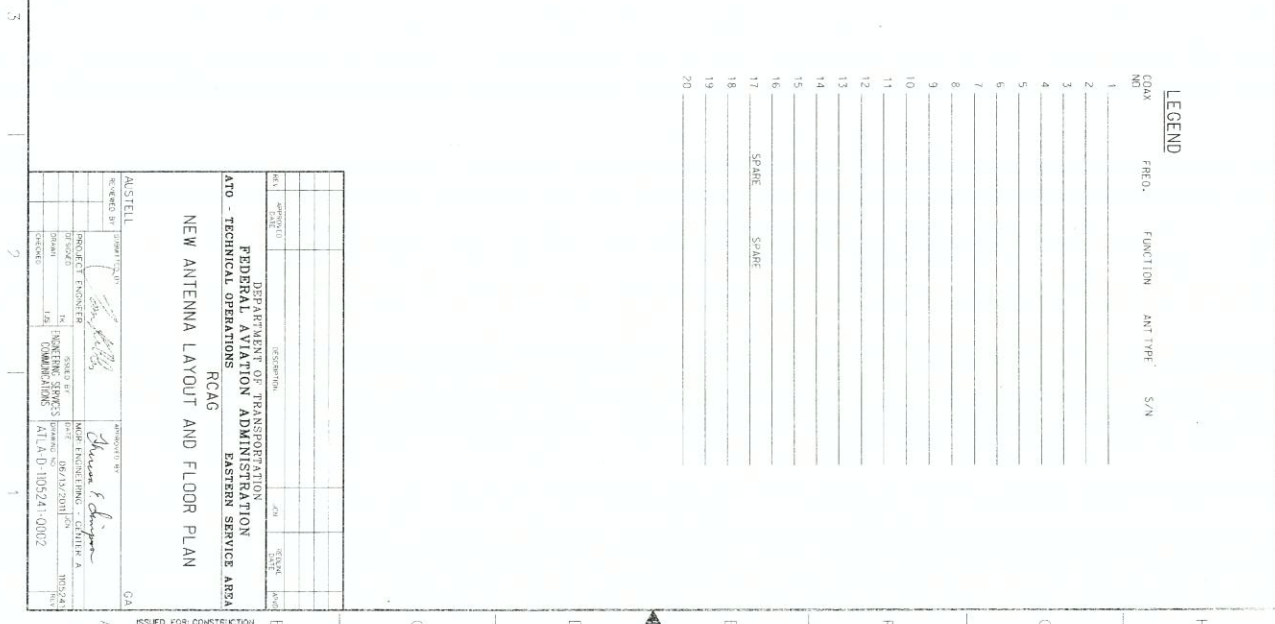
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	DRAWN	DRAWING NO.	ATT. 6-13-1905
T/S	ENGINEERING SERVICES CORPORATION		

DATE	2	1
ALFA 100		

[illegible]



	COAX	FREQ.	FUNCTION	ANT TYPE	S/N
1	359.9	UHF MAIN	DPV-37	00008	
2	SPARE	VHF SPARE	DPV-35	07509025	
3	SPARE	SPARE			
4	317.7	UHF SUBV	DPV-37	00002	
5	359.9	UHF MAIN	DPV-37	00240	
6	135.0	VHF MAIN	DPV-35	07508920	
7	SPARE	SPARE			
8	317.7	UHF MAIN	DPV-37	00301	
9	SPARE	SPARE			
10	135.0	VHF SUBV	DPV-35	01339	
11	127.25	ECS VHF	DPV-33	4544	
12	SPARE CABLE	SPARE			
13	243.0	ECS UHF	DPV-38	4567	
14	121.5	ECS VHF	DPV-35	11360	
15	129.7	ECS VHF	DPV-38	4543	
16	121.0	ECS VHF	DPV-38	4568	
17	118.35	ECS VHF	DPV-35	10939	
18					
19					
20					



LEGEND				
COAX	FREQ.	FUNCTION	ANT TYPE	S/N
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17	SPARE	SPARE		
18				
19				
20				

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